

DATA TO THE TRYPETIDAE FAUNA OF THE TISZA-VALLEY
(DIPTERA)

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The *Trypetidae* fauna of this country is comparatively well-known. This is a consequence of the family containing also economic parasites. E.g., *Rhagoletis cerasi* L., a parasite of cherries, generally known. The larvae of any *Trypetidae* species are herbivorous. The majority of them develops in the bloom of *Compositae*; some species of them, however, develop in stems, roots, fruit, and even in leaves.

I have collected *Trypetidae*, besides other *Diptera*, in the Tisza-valley since 1960. Early in 1968, I decided to elaborate the material collected. Therefore, in 1968 I collected the species of the family more intensively, and even I dealt with their growing from plant parts.

From the territory of this country, there have been demonstrated, so far, about 105 *Trypetidae* species. The number of species found in the Tisza-valley is not too high, about one-third of all the species living in our country. Nevertheless, some interesting species have been found, first of all from the district of Tiszatarján where my collecting work was the most intensive.

Below I am enumerating the species demonstrated so far from the Tisza-valley, and their habitats. I let known the area of their distribution in the Palearcticum and am referring to their occurrence in this country, as well, mentioning the food plants of the single species and describing my observations in connection with these species.

1. *Euribia stigma* L.w.

It is living in Central and Southern Europe, in this country mainly in the Hungarian Plain. Its larva develops in the bloom of *Achillea millefolium*. In the Tisza-valley, it was found in the blooms of *Achillea millefolium* and *Chrysanthemum vulgare*. I have observed it, anyway, even during netting the riverside plants.

Habitats: Hejő-mouth, October 9th, 1962; Oszlár, June 12th, 1963; Tiszatarján, May 8th, 1962; June 3rd 1968; September 16th, 1968.

2. *Euribia cardui* L.

Found in Europe and Siberia. In this country it is not frequent, being observed only in a few places, first of all in mountainous districts.

From the Plain, it is published only from Dunaföldvár, Makó, and Szeged in the literature at my disposal. Its larvae develop in the stem of *Cirsium arvense* causing galls of nut-size there. The data of Szeged are published by Béla Ambrus from the Tisza-valley where he has found the gall caused by the fly on the stem of *Cirsium arvense*.

Habitats: Oszlár, in the backwater of the Tisza, May 25th, 1961; Szeged, July 1960 (Ambrus).

3. *Euribia quadrifasciata* Meig.

It is living in Europe and North-Africa. In this country it is a widespread, common species. Interestingly, it has been observed, so far, only in two points of the Tisza-valley. In the collection of the Museum of Natural Sciences there are some specimens collected in Szolnok but it is unknown if these were found in the inundation area of the Tisza. Its larvae develop in the capitula of various *Centaurea* species.

Habitats: Tiszatarján, May 25th, 1963; June 24th, 1968; Vásárosnamény, July 14th, 1960.

4. *Euribia cuspidata* Meig.

It is a European species, found in various places of this country, as well. I could not find it, so far, in the Tisza-valley; at any rate, also it is contained in the collection of the Museum of Natural Sciences with Szolnok habitat, like the species mentioned above. Its larva has been grown from the bloom of *Centaurea* species.

5. *Myopites inulae* v. Rös.

It is living in Central and Southern Europe. In this country it is not frequent. We have known it, so far, only from the mountainous districts. Therefore, its collection from the Tisza-valley is enriching the fauna of the Hungarian Plain with a new datum. Its larva has been grown from the bloom of *Inula* species.

Habitat: Tiszatarján, September 2nd, 1968.

Fig. 2. Map 1: Habitats of *Myopites inulae* v. Rös. in this country.

6. *Platyparella discoidea* Fabr.

It is living in Northern and Central Europe. In Hungary it is rare. Its observation in the Tisza-valley similarly enriches the fauna of the Hungarian Plain with a new datum. Its food plant is not known as yet. The specimen found in the Tisza-valley is interesting if only because it completes the knowledge of the flying period of species that, according to the investigations so far, seemed to last from the end of April till the end of May. According to the new datum, however, the species flies in early June, too.

Habitat: Tiszatarján, June 5th, 1962.

Map 2: Habitats of *Platyparella discoidea* Fabr. in this country.

7. *Rhagoletis cerasi* L.

It is living in Central and Northern Europe. In Hungary it is everywhere common. Its larva develops in cherries (*Prunus avium*) causing their being "worm-eaten". More seldom it damages morellos (*Prunus cerasus*), as well. I have found its larva in many places of the Tisza-valley. Well-developed specimens could be collected, anyway, but in Tiszatarján, from *Prunus cerasus*.

Fig. 1: Drawing of *Rhagoletis cerasi* L. (cherry fly).

Habitats: Oszlár, Tiszakeszi, Tiszapalkonya, Tiszatarján (larva). Tiszatarján, June 16th, 1968 (imago).

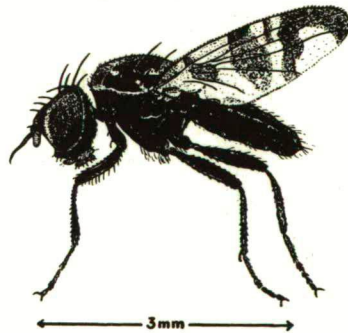


Fig. 1. *Rhagoletis cerasi* L. (A male specimen, according to Csiby).

8. *Trypeta zoë* Meig.

It is living in Central and Northern Europe. In Hungary it is not frequent. So far, it could be collected mainly from the mountainous districts. Its larva develops in the leaves of many kinds of plants. In the Tisza-valley only a single specimen of it could be found, but also that is considerable completing our knowledge concerning the distribution of the species.

Habitat: Tiszatarján, July 11th, 1968.

Map 3: Habitats of *Trypeta zoë* Meig in this country.

9. *Myiolia caesio* Harris.

It is a European species. In this country it has been found in many places, without being common. In the Tisza-valley it is not frequent, either. It was found during netting the riverside plants. Its food plant is known exactly.

Habitats: Tiszatarján, June 16th, 1968; Tiszatarján, backwater of the Tisza, May 24th, 1968.

10. *Chaetorellia jaceae* Rob.-Desv.

It is living in Europe and West-Asia. In Hungary it is frequent everywhere. Its larva develops in the blooms of *Centaurea* species and *Cirsium vulgare*. In the Tisza-valley, I have grown it from the blooms of *Centaurea jacea*, *Centaurea pannonica*, and *Cirsium vulgare*. I collected several specimens from the bloom of *Arctium lappa*.

Habitats: Tiszapalkonya, September 4th, 1965; Tiszafüred, August 2nd, 1968; Tiszatarján, June 24th, September 3rd, September 16th, 1968.

11. *Chaetostomella cylindrica* Rob.-Desv.

It is living in Europe, West-Asia, and North-Africa. In Hungary it is wide-spread mainly in the mountainous districts. Its larvae develop in the blooms of a lot of plants (*Arctium*, *Carduus*, *Centaurea*, etc.). In the Tisza-valley, I have grown it from the bloom of *Centaurea cyanus*.

Habitats: Hejő-bank, May, 16th, 1963; Tiszatarján, June, 16th, June, 24th, 1968.

12. *Orellia punctata* Schrk.

It is living in Central and Eastern Europe. In Hungary it is common everywhere, first of all in the Plain and in the hilly countries. This species is strangely not to be found in Tiszatarján. Its larva develops in the blooms of *Tragopogon* species.

Habitat: Tiszaladány, August 25th, 1964.

13. *Orellia falcata* Scop.

It is living in Central and Southern Europe. In this country it can be collected everywhere. Its larvae live in the root stem of *Tragopogon* and *Scorzonera* species.

Habitat: Hejő-bank, May 16th, 1963; Tiszatarján, June 10th, 1962.

14. *Orellia tussilaginis* Fabr.

It is a European species, in this country it is frequent everywhere. Its larva develops in the bloomhead of *Centaurea jacea*, *Arctium lappa*, *Arctium tomentosum*, etc. In the Tisza-valley it is a common species, as well. I have collected the most of the specimens found here from the bloom of *Arctium lappa*.

Habitats: Tiszakeszi, August 19th, 1968; Tiszatarján, July 10th, 1967; August 6th, 1968; Tokaj, September 1st, 1968.

15. *Orellia ruficauda* Fabr.

It is found in Central and Northern Europe, as well as in Central Asia. In this country, it is wide-spread mainly in the plains. Its larvae develop mainly in the capitula of *Cirsium* species. In the Tisza-valley, there was found only one specimen, so far.

Habitat: Tiszatarján, May 25th, 1963.

16. *Acinia biflexa* Lw.

It is living in Central and Western Europe. In this country it can be observed in the plains but it is not common. Its larva develops in the bloom of *Inula britannica*. I have succeeded in growing some of them from that plant, as well.

Habitats: Tiszafüred, August 2nd, 1968; Tiszatarján, May 25th, 1963; June 16th, 1968.

17. *Xyphosia miliaria* Schrk.

It has been observed in the most parts of Europe. In this country it is common everywhere. It is interesting that in the Tisza-valley only a single specimen has been found, so far. Its larva develops in the blooms of *Carduus mutans* and *Cirsium* species.

Habitat: Tiszatarján, July 7th, 1967.

18. *Ictericodes japonica* Wied.

It is known from Central Europe and Japan. In Hungary it has been found but in a few places, mainly in the Plain. It is not frequent in the Tisza-valley, either. Its larva lives in the bloom of *Inula britannica*.

Habitats: Tiszafüred, August 2nd, 1968; Tiszatarján, June 24th, 1968.

19. *Stylia bidentis* Rob.-Desv.

It can be found in Europe, in the environment of the Mediterranean, and in Central Asia. In this country it is common first of all in the Plain and in the hilly countryes. Its larvae develop in the blooms of *Bidens cernua*, *Bidens tripartita*, *Centaurea rhenana* and *Chrysanthemum vulgare*. Also in the Tisza-valley it can be collected everywhere,

being the *Trypetida* species observed in the greatest specimen number. I have collected a lot of them from the bloom of *Chrysanthemum vulgare*. This plant is living in large numbers in some regions of the Tisza-valley (e.g.), at the bank of the Hejő brook or in Tiszatarján). It is therefore understandable why this *Trypetida* species has been found in that region in large quantities. I have grown a lot of specimens from the blooms of *Chrysanthemum vulgare* and *Bidens cernua*.

Habitat: Hejő-bank, October 9th, November 7th, 1962; Oszlár, June 17th, 1963; Tiszafüred, August 2nd, October 20th, 1968; September 18th, 1958 (pasturage Zsirkó); Tiszatarján, September 23rd, October 7th, 1962; June 24th, September 3rd, September 15th, September 16th, September 30th, October 3rd, October 11th, 1968; Tiszapalkonya, September 18th, 1960; Vásárosnamény, July 14th, 1960; Tiszakeszi, October 18th, 1968; Szeged, October 1st, 1932 (Zilahi-S.).

20. *Stylia tessellata* Lw.

It is a wide-spread species from North-Africa through Europe till Central Asia. In this country it is general throughout the country. Its larva develops in the blooms of several plants (*Leontodon* species, *Taraxacum officinale*, etc.). In the Tisza-valley, I have grown it from the bloom of *Taraxacum officinale*.

Habitat: Tiszatarján, July 18th, 1968.

21. *Oxyna flavipennis* Lw.

It is a European species. In this country it is common everywhere. Its larva causes galls on the foot of the root of *Achillea millefolium*. It is common in the Tisza-valley, as well. Some specimens of it have been found in the blooms of *Achillea millefolium*.

Habitats: Hejő-bank, June 16th, 1968; Tiszatarján, June 16th, June 24th, 1968.

22. *Oxyna parietina* L.

It is a European species. In Hungary it is not frequent, as it seems to prefer first of all the lower mountainous countries. I have found literary data concerning plains only from the plain in North-Eastern Hungary (Fertőd). Its occurrence in the Tisza-valley enriches, therefore, the *Diptera* fauna of the Plain with a new datum. Its larva lives in the stem of *Artemisia vulgaris*.

Habitats: Hejő-bank, May 16th, 1963; Tiszatarján, backwater of the Tisza, May 24th, 1968.

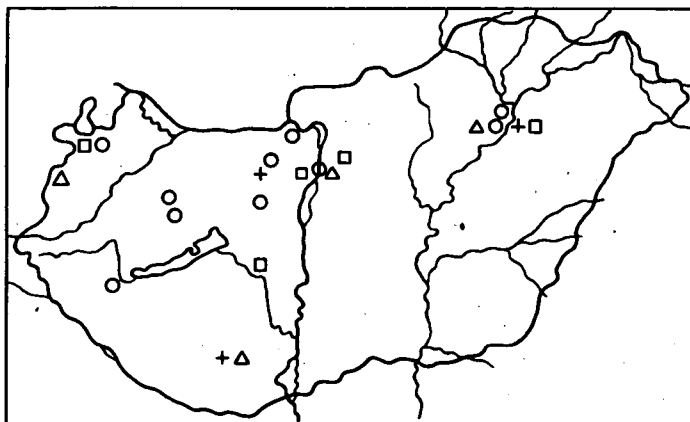
Map 4: Habitats of *Oxyna parietina* L. in this country.

23. *Sphenella marginata* Fall.

24. *Ensina sonchi* L.

It is a species occurring in the whole of Europe, being common also everywhere in this country. Its larva develops in the capitula of several plants. In the Tisza-valley I have succeeded in growing one specimen of it from the capitulum of *Tragopogon major*.

Habitats: Tiszapalkonya, September 18th, 1960; Tiszatarján, June 10th, 1962; June 12th, 1968.



+ = *Myopites inulae* v. Rös. Δ = *Trypeta zoë* Meig.
 □ = *Platyparella discoidea* Fabr. ○ = *Oxya parietina* L.

Fig. 2. Habitats of *Myopites inulae* v. Rös. *Platyparella discoidea* Fabr. *Trypeta zoë* Meig. and *Oxya parietina* L. in this country.

25. *Camaromya bullans* Wied.

It can be found in the southern part of Europe and in South-America. In this country it is not common, occurring mainly in the Plain. Food plant of its larva is *Xanthium spinosum*.

Habitat: Tiszatarján, June 4th, 1966; June 8th, 1968.

26. *Tephritis nigricauda* L.w.

It can be found in the whole of Europe, in North-Africa, and largely in Asia. In Hungary it is not common. In the Tisza-valley only a single specimen was found. Its larvae develop in the capitula of *Achillea millefolium*, *A. ptarmica* and *Matricaria inodora*.

Habitat: Hejő-bank, July 18th, 1967.

27. *Tephritis dioscurea* L.w.

It is living in Central and Southern Europe, as well as in Kamchatka. In Hungary it can be found in a lot of places but it is not frequent. I have failed in collecting it but the Museum of Natural Sciences has a specimen from the Tisza-valley in its collection. Its larva develops in the capitula of *Achillea millefolium*, *Chrysanthemum* and *Crepis* species.

Habitat: Bustyháza, at the bank of the Tisza, June 5th, 1960 (Zsirkó).

28. *Tephritis formosa* Lw.

It is living in Central and Southern Europe. In this country it was collected but in a few places, mainly in hilly and mountainous countries. Its larva develops in the bloom of *Sonchus oleraceus*. In the Tisza-valley it has been found but in a single specimen; this, however, is a new datum for the flying time of the species because, so far, we hadn't any data from the month September.

Habitat: Tiszatarján, September 23rd, 1968.

29. *Tephritis ruralis* Lw.

It can be found in the whole of Europe. In Hungary it was found in many places, as well, but it is here not common. Its larva lives in the capitulum of *Hieracium pilosella*.

Habitats: Bustyháza, at the bank of Tisza, June 5th, 1960 (past. Zsirkó); Tiszatarján, June 14th, 1968.

30. *Tephritis pulchra* Lw.

It is living in Central Europe and in the environment of the Mediterranean. In Hungary it has been collected mainly in the Plain, being anyway not frequent. Its larva develops in the bloom of the *Scorzonera* species. In the Tisza-valley, it could be grown from the capitulum of *Scorzonera cana*.

Habitat: Tiszatarján, June, 1968.

31. *Tephritis cometa* Lw.

It is living in Europe, Asia Minor, as well as in Central Asia. In Hungary it is a common species everywhere, mainly in the plain regions. Its larva has been grown from *Arnica montana* and *Aster bellidiastrum*. It is frequent also in the Tisza-valley. It is interesting, however, that in 1968 it could not be found in spite of being collected intensively, and it could not be grown, either.

In connection with the dates April 30 and May 16 it is to be noticed that these are meaning new data concerning the beginning of the flying period of the species. So far, the earliest specimens were namely found but from the end of May.

Habitats: Hejő-bank, May 22nd, 1962; May 16th, 1963; Oszlár, June 12th, 1963; Oszlár, at the backwater of the Tisza, April 30th, 1962; Tiszatarján, June 10th, August 23rd, 1962.

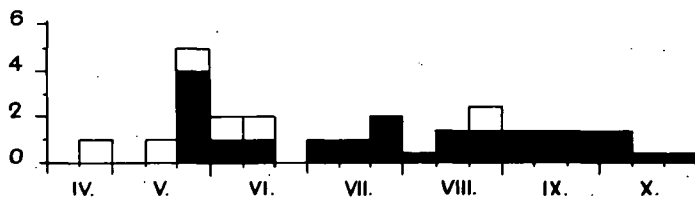


Fig. 3. Flying period of *Tephritis cometa* Lw. in this country. On the horizontal axis the months are given, in decadal distribution. On the vertical axis the number of collections is given on the basis of the evaluable data. The data from the Tisza-valley are left light.

32. *Trupanea amoena* Frfld.

It is a species common in the great part of the Palearcticum and in South-Asia. In this country it is frequent mainly in the plains; in the Tisza-valley, however, there was found but a single specimen of it. Its larva develops in the blooms of several plants. From time to time it causes losses in growing the lettuce seeds (*Lactuca sativa* L.).

Habitat: Tiszatarján, September 3rd, 1968.

33. *Trupanea stellata* Fuess.

It is a species wide-spread in a large part of the Palearcticum. In Hungary it is common everywhere, first of all in the plains. It has several food plants. In the Tisza-valley, I have grown it from the bloom of *Inula britannica*.

Habitats: Szolnok, July 29th, 1955 (past. Balás); Tiszatarján, August, 1968.

34. *Acanthiophilus helianthi* Rossi

It is common in the whole Palearcticum. In Hungary, it is the most frequent *Trypetida* species, observed everywhere. It is a notorious parasite of the *Centaurea* seed production in this country. It has several food plants. In the Tisza-valley it could be grown from the bloom of *Cirsium arvense*.

Habitats: Tiszafüred, August 2nd, 1968; Tiszaladány, August 25th, 1964; Tiszatarján, July 11th, September 3rd, September 16th, September 30th, 1968.

References

- Ambrus, B. (1962): Adatok a hazai gubacsfauna ismeretéhez. (Data to the knowledge of the gall fauna in this country.) IV. A szegedi Tiszameder zoocecidiumai. (Die Zoocecidien der Tisza bei Szeged). — *Folia Ent. Hung.* 15, 205—219.
- Balás, G. and Mihályi, F. (1959): Adatok a fűrőlegyek magyarországi tápnövényeinek ismeretéhez. (Data to the knowledge of the food plants of *Trypetidae* in Hungary.) — *Állatt. Közl.* 47, 45—53.
- Martinovich, V. and Mihályi, F. (1958): Ökológiai és nevelési megfigyelések hazai Trypetidákon. (Ecological and cultural observations on *Trypetidae* in Hungary.) — *Kertészeti Kutatóintézet Year-book*, 3, 105—109.
- Martinovich, F. (1965): Tápnövény- és elterjedési vizsgálatok hazai fűrőlegyeken. (*Diptera, Trypetidae*.) (Investigations of food plants and distribution of *Diptera* and *Trypetidae* in Hungary.) — *Állatt. Közl.* 52, 89—94.
- Martinovich, V. (1967): Adatok a Kárpátmedence fűrőlegyeinek ismeretéhez (*Diptera, Trypetidae*.) (Data to the knowledge of *Diptera* and *Trypetidae* of the Carpathian basin.) — *Folia Ent. Hung.* 20, 459—473.
- Martinovich, V. (1961): Fenológiai vizsgálatok a Kárpátmedence fűrőlegyein. (Phenologic investigations on *Diptera* and *Trypetidae* of the Carpathian basin.) — *Folia Ent. Hung.* 14, 119—142.
- Mihályi, F.: Fűrőlegyek (*Trupetidae*). In Székessy: *Fauna Hung.* 56.
- Mihályi, F. (1959): A revision of the Trypetids of the Carpathian basin (*Diptera*). — *Ann. Hist. — Nat. Mu. Nat. Hung.*, 51, 339—362.